





# Relative and differential pressure transmitter

## Type 699M

The pressure transmitter 699M is used primarily for the monitoring of air and neutral gasses. The unit is optionally available with one or two differential pressure sensors, which allows the observation of differential pressure or volumetric flow at two individual points in the system. This makes the 699M ideally suited for a multitude of tasks in the HVAC industry.

The 699M communicates via Modbus® RTU and features two universal inputs in addition to two analog outputs. The linking of further sensors and control of actuators offers the option of using the unit as a decentralized node for existing controllers, extending in- and outputs, and lowering installation costs.

The sensors utilized by the unit are based on the unique and well-proven ceramic strain-gauge beam technology developed by Huba Control AG.

### Pressure range

0 ... 500 - 7000 Pa

- + High accuracy and long-term stability via ceramic straingauge technology
- + Modbus® RTU interface
- + Available with one or two differential pressure sensor units
- + Up to two universal inputs for 0 ... 10 V or passive temperature elements
- + Two 0 ... 10 V analog outputs
- + Simple installation, reduced wiring effort through decentralized node

Pressure range						
elative and differential				0 500 – 7000 P		
leasuring variables				Pa, psi, mmHG,	II I2♥	
Operating conditions				Air and at	racco (not condend)	
1edium		Medium		0 +70 °C	gases (not condensing)	
emperature		Ambient		-25 +50 °C		
		Storage No condensat	ion	-30 +70 °C		
olerable overload on one side (short-term)		NO CONGENSAL	1011	P+ = 10'000 Pa /	P- = 400 Pa	
Rupture pressure		Ambient temp	erature	20'000 Pa		
		70 °C		15'000 Pa		
Materials in contact with medium						
Sensor Diaphragm				Ceramic Al <sub>2</sub> O <sub>3</sub> (9 Silicone	6%)	
Housing					C / Polyamide (PA)	
Electrical overview						
Power consumption				< 2 VA		
Power supply				24 VAC/DC ±15%	ó	
Oltage outputs Universal inputs				2x 0 10 V	.000 / LG-Ni1000 / NTC1	0K / Ni1000
esponse time				<1s	.000 / EO-INITOOO / INICI	OIL / INITOON
olarity reversal protection	Short circuit proof and protected against po	larity reversal. Each connection is p			y voltage.	
Vire length			signal wiring Modbus® wiring	max. 50 m max. 100 m		
			sabas wiing			
Protection standard				Protection clas	s	
<u> </u>				III		
/lodbus®				10.7/11	h (Colo e)	
ddress range Baudrate				1-247 (40 = defa 9:600 - 57:600	ult if DIP = 0)	
ormat				Modbus® RTU		
ine termination				selectable via D	IP-Switch	
lardware tandard configuration		selectable via	DIP-Switch	RS485 9600F1 (9600 ba	aud rate, 1 stop bit, ever	narity)
		Sciectable via	0	3330E1 (3000 De	a.c., 1 3top bit, ever	. p. 01.10y/
nterface rush button	Zero point reset, reset on factory setting					
DIP switch						
	Modbus® adress, baud rate, parity and sch					
ED						
ED Electrical connection	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)					
ED  Electrical connection  Exercise terminals for wire and stranded condu	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)					
Electrical connection icrew terminals for wire and stranded condu x cable bushing \$15 for cable \$0.3 - 6 mm	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)					
Electrical connection Crew terminals for wire and stranded condu x cable bushing が15 for cable Ø 3 - 6 mm x cable bushing が20 for cable Ø 5 - 10 mm	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)					
ED	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)			0 V	±66 mV	
Electrical connection Gerew terminals for wire and stranded condu excable bushing が15 for cable Ø 3 - 6 mm x cable bushing が20 for cable Ø 5 - 10 mm	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)		0 10 VDC	5 V	±95 mV	
EED  Electrical connection  Screw terminals for wire and stranded condu 2 x cable bushing \$15 for cable @3 - 6 mm 2 x cable bushing \$20 for cable @5 - 10 mm  Analogue outputs A01, A02  Accuracy	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)		0 10 VDC	5 V 10 V		
Electrical connection Grew terminals for wire and stranded conduct x cable bushing \$715 for cable @ 3 - 6 mm x cable bushing \$720 for cable @ 5 - 10 mm Analogue outputs A01, A02 Accuracy Resolution	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)		0 10 VDC	5 V	±95 mV	
Electrical connection  Screw terminals for wire and stranded conduct cable bushing \$15 for cable 03 - 6 mm  Excable bushing \$20 for cable 05 - 10 mm  Analogue outputs A01, A02  Accuracy  Resolution  Output current	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)		0 10 VDC	5 V 10 V < 11 mV max. 1 mA	±95 mV ±124 mV	TK/R
EED  Electrical connection  Increw terminals for wire and stranded conduct cable bushing \$15 for cable 03-6 mm  Increw terminals for wire and stranded conduct cable bushing \$25 for cable 05-10 mm  Increased bushing \$20 for cable 05-10 mm  I	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)		-50 +150°°C	5 V 10 V < 11 mV	±95 mV	
EED  Electrical connection  Increw terminals for wire and stranded conduct cable bushing \$15 for cable 03-6 mm  Increw terminals for wire and stranded conduct cable bushing \$25 for cable 05-10 mm  Increased bushing \$20 for cable 05-10 mm  I	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)		-50 +150°°C -50 +150°°C	5 V 10 V < 11 mV max. 1 mA Accuracy ±0.5 K ±0.5 K	±95 mV ±124 mV Resolution 0.1 K 0.1 K	3850 ppm 5000 ppm
EED  Electrical connection  Increw terminals for wire and stranded conduct cable bushing \$15 for cable 03-6 mm  Increw terminals for wire and stranded conduct cable bushing \$25 for cable 05-10 mm  Increased bushing \$20 for cable 05-10 mm  I	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000	-50 +150°°C -50 +150°°C -5026°°C	5 V 10 V < 11 mV max. 1 mA Accuracy ±0.5 K ±0.5 K ±1.0 K	±95 mV ±124 mV Resolution 0.1 K 0.1 K 0.2 K	3850 ppm 5000 ppm 3979 ppm
EED  Electrical connection  Corew terminals for wire and stranded conduct cable bushing \$15 for cable \$0.3 - 6 mm and the cable bushing \$20 for cable \$0.5 - 10 mm  Couracy  Elecolution  Output current  Couracy	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K	-50 +150°°C -50 +150°°C	5 V 10 V < 11 mV max. 1 mA Accuracy ±0.5 K ±0.5 K	±95 mV ±124 mV Resolution 0.1 K 0.1 K	3850 ppm 5000 ppm 3979 ppm 3979 ppm
EED  Electrical connection  Screw terminals for wire and stranded conduct cable bushing \$15 for cable \$0.3 - 6 mm  Ex cable bushing \$20 for cable \$0.5 - 10 mm  Analogue outputs A01, A02  Accuracy  Resolution  Output current  Analogue inputs Al1, Al2	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000	-50 +150°°C -50 +150°°C -5026°°C -25 +99°°C +100 +150°C -50 +150°°C	5 V 10 V < 11 mV max. 1 mA Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±3.0 K ±0.5 K	±95 mV ±124 mV Resolution 0.1 K 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K	3850 ppm 5000 ppm 3979 ppm 3979 ppm 3979 ppm 6180 ppm
EED  Electrical connection  Corew terminals for wire and stranded conduct cable bushing \$15 for cable \$0.3 - 6 mm and the cable bushing \$20 for cable \$0.5 - 10 mm  Couracy  Elecolution  Output current  Couracy	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -5026°°C -25 +99°°C +100 +150°°C 0 V	5 V 10 V <11 mV max. 1 mA Accuracy ±0.5 K ±1.0 K ±0.5 K ±3.0 K ±0.5 K ±3.0 K ±0.5 K	±95 mV ±124 mV Resolution 0.1 K 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
ED  Electrical connection  Increw terminals for wire and stranded conduct a cable bushing \$15 for cable 0 3 - 6 mm  Increw terminals for wire and stranded conduct a cable bushing \$15 for cable 0 5 - 10 mm  Increased a cable of the cable 0 5 - 10 mm  Increased a cable of the cab	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K	-50 +150°°C -50 +150°°C -5026°°C -25 +99°°C +100 +150°C -50 +150°°C	5 V 10 V < 11 mV max. 1 mA Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±3.0 K ±0.5 K ±25 mV ±25 mV	±95 mV ±124 mV Resolution 0.1 K 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
Electrical connection  Screw terminals for wire and stranded conduct x cable bushing \$15 for cable Ø 3 - 6 mm  Ex cable bushing \$20 for cable Ø 5 - 10 mm  Analogue outputs A01, A02  Accuracy  Resolution  Dutput current  Analogue inputs Al1, Al2	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -50 +26°°C -25 +99°°C +100 +150°C -50 +150°°C 0V 5 V	5 V 10 V <11 mV max. 1 mA Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±3.0 K ±0.5 K ±2.5 K ±3.0 K	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K 0.1 K	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
Electrical connection Screw terminals for wire and stranded conduct coable with the conduct coable with the co	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -50 +26°°C -25 +99°°C +100 +150°C -50 +150°°C 0V 5 V	5 V 10 V < 11 mV max. 1 mA Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±3.0 K ±0.5 K ±25 mV ±25 mV	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K 0.1 K	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
EID  Electrical connection  Increw terminals for wire and stranded conduct a cable bushing \$15 for cable Ø 3 - 6 mm  Increw terminals for wire and stranded conduct a cable bushing \$15 for cable Ø 5 - 10 mm  Increased bushing \$20 for cable Ø 5 - 1	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -50 +26°°C -25 +99°°C +100 +150°C -50 +150°°C 0V 5 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±25 mV ±25 mV ±25 mV min. 100 kΩ  0 1500	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K 0.1 K	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
EED  Electrical connection  Excrew terminals for wire and stranded conduct cable bushing \$15 for cable \$0.3 - 6 mm	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -50 +26°°C -25 +99°°C +100 +150°C -50 +150°°C 0V 5 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±25 mV ±25 mV ±25 mV min. 100 kΩ  0 1500 Q = k * Δρ	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K 0.1 K	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
Electrical connection  Screw terminals for wire and stranded conduct cable bushing \$15 for cable Ø 3 - 6 mm  Excable bushing \$20 for cable Ø 5 - 10 mm  Analogue outputs A01, A02  Accuracy  Resolution  Dutput current  Analogue inputs Al1, Al2  Accuracy  Coccuracy	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -50 +26°°C -25 +99°°C +100 +150°C -50 +150°°C 0V 5 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±25 mV ±25 mV ±25 mV min. 100 kΩ  0 1500	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K 0.1 K	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
EED  Electrical connection  Increw terminals for wire and stranded conduct a cable bushing \$15 for cable Ø 3 - 6 mm  Increw terminals for wire and stranded conduct a cable bushing \$15 for cable Ø 3 - 6 mm  Increase a cable bushing \$20 for cable Ø 5 - 10 mm  Increase a cable of the cable of	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -50 +26°°C -25 +99°°C +100 +150°C -50 +150°°C 0V 5 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±20.5 K ±3.0 K ±0.5 K	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 3979 ppm, 6180 ppm,
Ilectrical connection  Crew terminals for wire and stranded condux cable bushing \$715 for cable \$0.3 - 6 mm\$  X cable bushing \$720 for cable \$0.5 - 10 mm\$  Inalogue outputs A01, A02  Cccuracy  Secolution  Further terminals and the second stranded conduction and the second strands are second strands are second strands and the second strands are second stra	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000	-50 +150°°C -50 +150°°C -50 +26°°C -25 +99°°C +100 +150°C -50 +150°°C 0V 5 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±20.5 K ±3.0 K ±0.5 K	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K 0.5 K 0.1 K	3850 ppm 5000 ppm 3979 ppm 3979 ppm 3979 ppm 6180 ppm
ED  lectrical connection  crew terminals for wire and stranded condux cable bushing \$15 for cable \$0.3 - 6 mm\$  x cable bushing \$20 for cable \$0.5 - 10 mm\$  nalogue outputs A01, A02  ccuracy  esolution  butput current  nalogue inputs Al1, Al2  ccuracy  curracy  nput resistance  low calculation  ermitted K-Factor range alcasuring variables  ressure connection  onnection pipe  lounting instructions	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -5026°°C -25 +99°°C +100 +150°C -50 +150°°C 0 V 5 V 10 V	5 V 10 V <11 mV max.1 mA  Accuracy ±0.5 K ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±25 mV ±25 mV ±25 mV ±10 min. 100 kΩ  0 1500 Q = k * γΔρ   V/s, m³/h, m³/s	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm 5000 ppm 3979 ppm 3979 ppm 3979 ppm 6180 ppm
ED    Ilectrical connection     Crew terminals for wire and stranded condux cable bushing \$15 for cable Ø 3 - 6 mm     x cable bushing \$20 for cable Ø 5 - 10 m	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -50 +150°°C -50 +150°°C +100 +150°C 0V 5V 10 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±20.5 K ±3.0 K ±0.5 K ±0.5 K ±0.5 K ±0.5 K ±0.5 K ±0.5 M	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm 5000 ppm 3979 ppm 3979 ppm 3979 ppm 6180 ppm
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EED  Electrical connection  Increw terminals for wire and stranded conduct cable bushing \$15 for cable Ø 3 - 6 mm  Increw terminals for wire and stranded conduct cable bushing \$15 for cable Ø 3 - 6 mm  Increase and the strand of the strand	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -50 +150°°C -50 +150°°C +100 +150°C 0V 5V 10 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K ±0.5 K ±3.0 K ±0.5 K ±3.0 K ±0.5 K ±3.0 M ±0.5 M	±95 mV ±124 mV Resolution 0.1 K 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm 5000 ppm 3979 ppm 3979 ppm 3979 ppm 6180 ppm
ED  lectrical connection  crew terminals for wire and stranded condux cable bushing \$15 for cable \$0.3 - 6 mm\$  x cable bushing \$20 for cable \$0.5 - 10 mm\$  nalogue outputs A01, A02  ccuracy  esolution putput current  nalogue inputs Al1, Al2  ccuracy  low calculation  ermitted K-Factor range alculation Formula leasuring variables  ressure connection onnection pipe  lounting instructions  installation arrangement lounting  ests / Admissions  L	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -50 +150°°C -50 +150°°C +100 +150°C 0V 5V 10 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K 0.5 K ±25 mV ±25 mV ±25 mV ±10 min. 100 kΩ  0 1500 Q = k * VΔP   V, m³/h, m³/s  Ø 6.2 mm (for pi	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm 5000 ppm 3979 ppm 3979 ppm 6180 ppm -
EED  Electrical connection  Excrew terminals for wire and stranded conduct cable bushing \$15 for cable Ø 3 - 6 mm  Excable bushing \$20 for cable Ø 5 - 10 mm  Excable bushing \$20 for cable Ø 5 - 10 mm  Excapped outputs A01, A02  Execuracy  Electrical connection  Excouracy  Electrical connection  Excouracy  E	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -50 +150°°C -50 +150°°C +100 +150°C 0V 5V 10 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K 0.5 K ±25 mV ±25 mV ±25 mV ±10 min. 100 kΩ  0 1500 Q = k * VΔP   V, m³/h, m³/s  Ø 6.2 mm (for pi	±95 mV ±124 mV Resolution 0.1 K 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm, 5000 ppm, 3979 ppm, 3979 ppm, 6180 ppm, -
ED  Ilectrical connection  crew terminals for wire and stranded condux cable bushing \$15 for cable \$0.3 - 6 mm\$  x cable bushing \$20 for cable \$0.5 - 10 mm\$  Inalogue outputs A01, A02  ccuracy  Ilecolution  Putput current  Inalogue inputs A11, A12  Indicator of the condition of	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -50 +150°°C -50 +150°°C +100 +150°C 0V 5V 10 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K 0.5 K ±25 mV ±25 mV ±25 mV ±10 min. 100 kΩ  0 1500 Q = k * VΔP   V, m³/h, m³/s  Ø 6.2 mm (for pi	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm 5000 ppm 3979 ppm 3979 ppm 6180 ppm -
Icctrical connection  Crew terminals for wire and stranded conduct cable bushing \$15 for cable \$0.3 - 6 mm\$  X cable bushing \$20 for cable \$0.5 - 10 mm\$  Inalogue outputs A01, A02  Cccuracy  Sesolution Sutput current  Inalogue inputs A11, A12  Cccuracy  Sesolution Sutput resistance  Illumation formula Sessuring variables  Indicates the sessure connection Sessure connectio	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -50 +150°°C -50 +150°°C +100 +150°C 0V 5V 10 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K 0.5 K ±25 mV ±25 mV ±25 mV ±10 min. 100 kΩ  0 1500 Q = k * VΔP   V, m³/h, m³/s  Ø 6.2 mm (for pi	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm 5000 ppm 3979 ppm 3979 ppm 6180 ppm -
lectrical connection  crew terminals for wire and stranded conduct cable bushing \$715 for cable \$0.3 - 6 mm\$  x cable bushing \$720 for cable \$0.5 - 10 mm\$  nalogue outputs A01, A02  ccuracy  esolution utput current  nalogue inputs A11, A12  ccuracy  put resistance  low calculation ermitted K-Factor range alculation Formula easuring variables  ressure connection connection pipe  ounting instructions  stallation arrangement ounting  ests / Admissions  L  E-conformity  AC  deight	Modbus® adress, baud rate, parity and sch Status indication (red, yellow, green, blue)	configured as PT1000 configured as LG-Ni1000 configured as NTC10K configured as Ni1000 configured as 0 10 VDC	-50 +150°°C -50 +150°°C -50 +150°°C -50 +150°°C +100 +150°C 0V 5V 10 V	5 V 10 V <11 mV max. 1 mA  Accuracy ±0.5 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K ±0.5 K ±1.0 K 0.5 K ±25 mV ±25 mV ±25 mV ±10 min. 100 kΩ  0 1500 Q = k * VΔP   V, m³/h, m³/s  Ø 6.2 mm (for pi	±95 mV ±124 mV Resolution 0.1 K 0.2 K 0.1 K 0.5 K 0.1 K < 5 mV < 5 mV < 5 mV	3850 ppm 5000 ppm 3979 ppm 3979 ppm 6180 ppm -

#### Accuracy

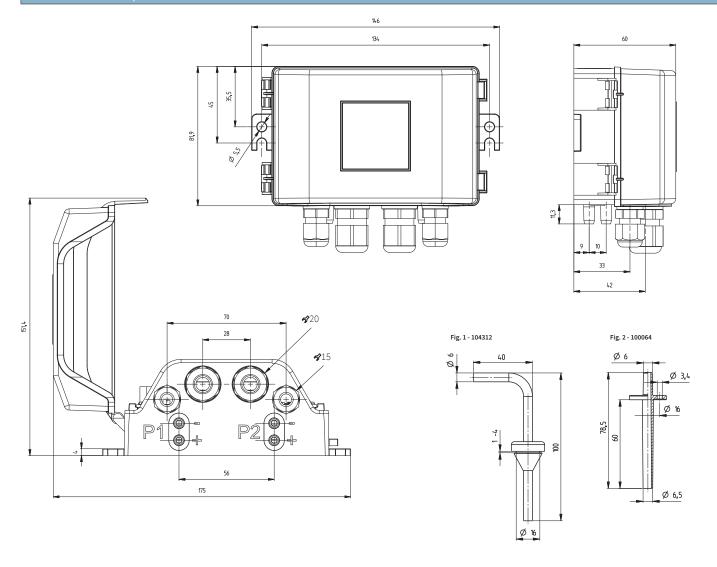
Parameter	Unit	0 500 Pa	0 1250 Pa	0 2500 Pa	0 5500 Pa	0 7000 Pa
Overall accuracy at +20 °C	% fs	<±1.0	< ±0.5	< ±0.5	< ±0.6	< ±0.7
Overall accuracy at 0 +50 °C	% fs	< ±2.0	< ±1.0	< ±1.0	< ±0.8	< ±0.8
Resolution	% fs	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Long therm stability acc. DIN EN 60770	% fs	< ±1.0	< ±1.0	< ±1.0	< ±1.0	< ±1.0

Test conditions: 25 °C,45% rh, power supply 24 VDC

			1	2	3	4	5	6	7	8	9
Order code selection	n table 699	М.	Χ	Х	Χ	Χ	Χ	Х	Χ	Χ	Χ
	0 500 Pa		0	5							
D D1 1)	0 1250 Pa		1	2							
Pressure range P1 1)	0 2500 Pa		2	5							
	0 5500 Pa		5	5							
	0 7000 Pa		7	0							
	without pressure connection P2				0	0					
	0 500 Pa				0	5					
Pressure range P2 1)	ressure range <b>P2</b> <sup>1)</sup> 0 1250 Pa				1	2					
	0 2500 Pa				2	5					
	0 5500 Pa				5	5					
	0 7000 Pa				7	0					
Communication	Modbus® RTU						М				
Analogue input	2 x universal inputs 0 10 VDC, temperature (PT1000 / LG-Ni1000 / NTC10K / NI1000)							2			
Analogue output	1tput 2 × 0 10 V								2		
Electrical connection	4 x cable bushing for cable 2x Ø3 6 mm + 2x Ø5 10 mm incl. blanking plug									4	
Pressure connnection	Connection pipe Ø 6.2 mm for tube di = 5 mm without orifice										0
Connection pipe Ø 6.2 mm for tube di = 5 mm with orifice											1

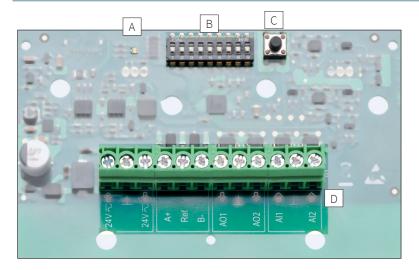
Accessories (supplied loose)		Order number
Connection kit for vent duct (metal), 90° angled, 2pcs (Fig. 1)	including tube 2 m long	104312
Connection kit for vent duct (plastic), straight, 2 pcs (Fig. 2)	including tube 2 m long	100064

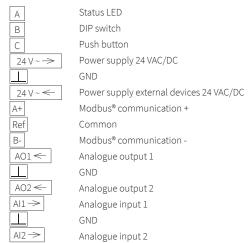
#### Dimensions in mm / Electrical connections



<sup>1)</sup> max. 10000 Pa (over pressure on one side)

#### Setting and connection elements





# Huba Control



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